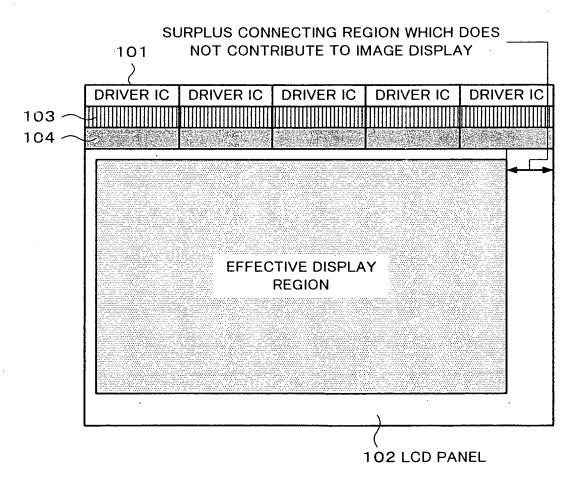
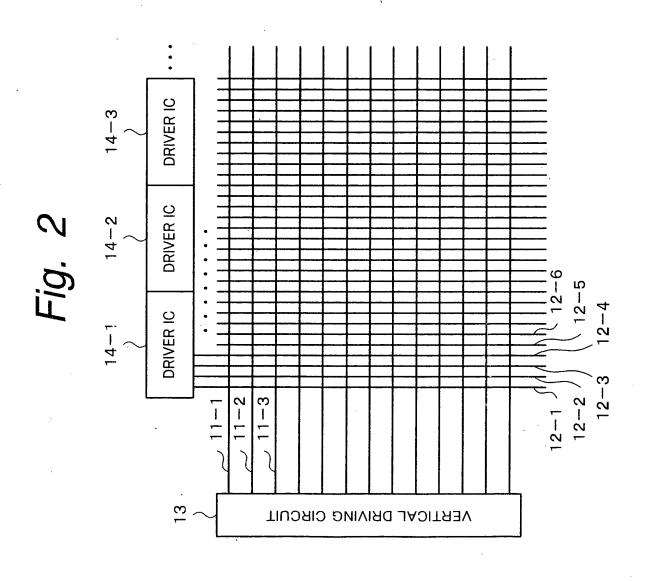
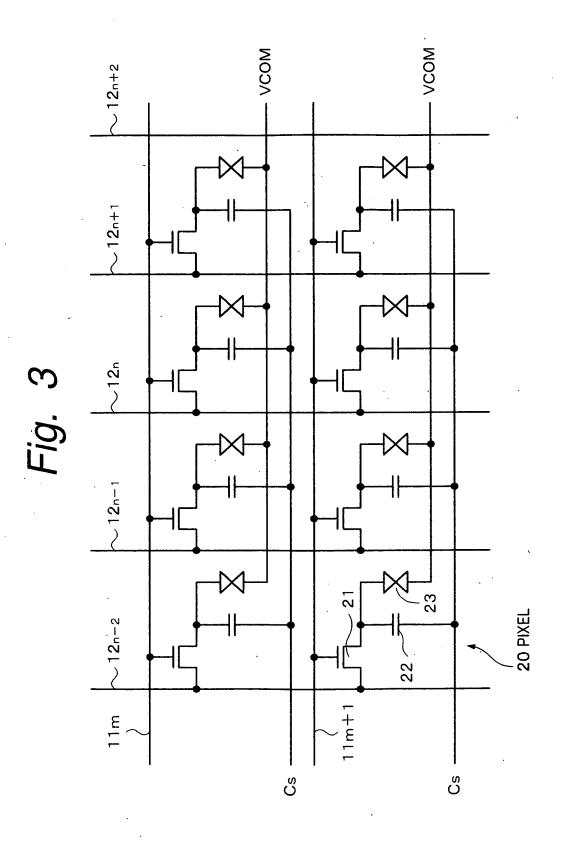
Fig. 1

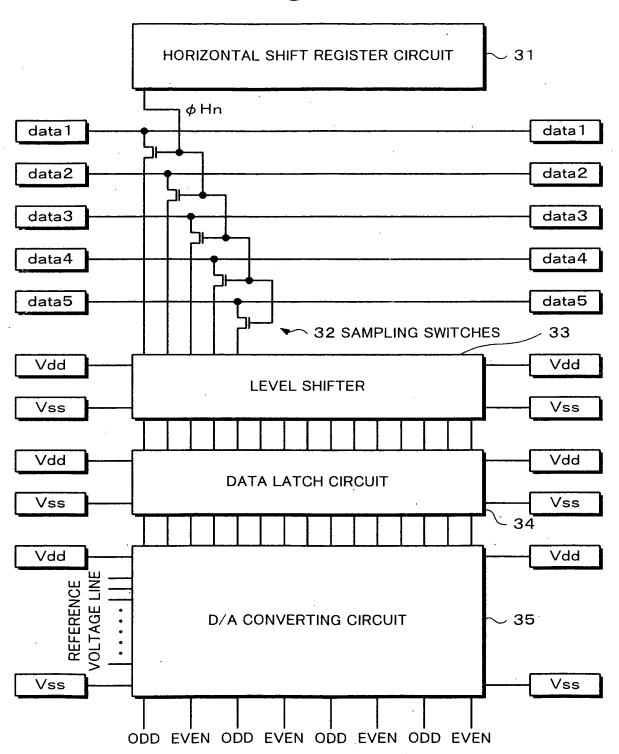


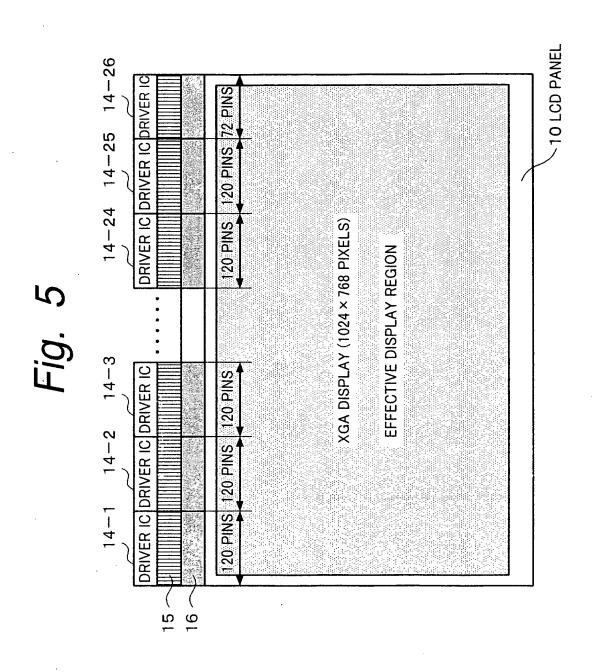




· 668; ASM 182 (Q.4)

Fig. 4





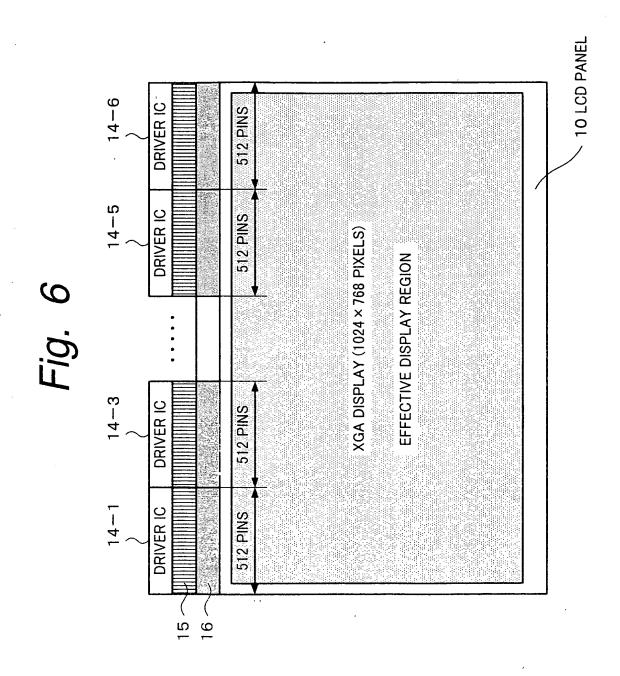
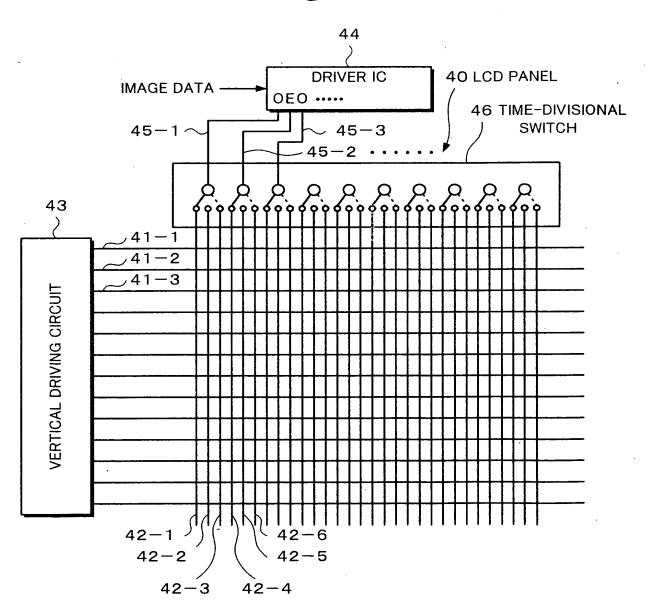


Fig. 7



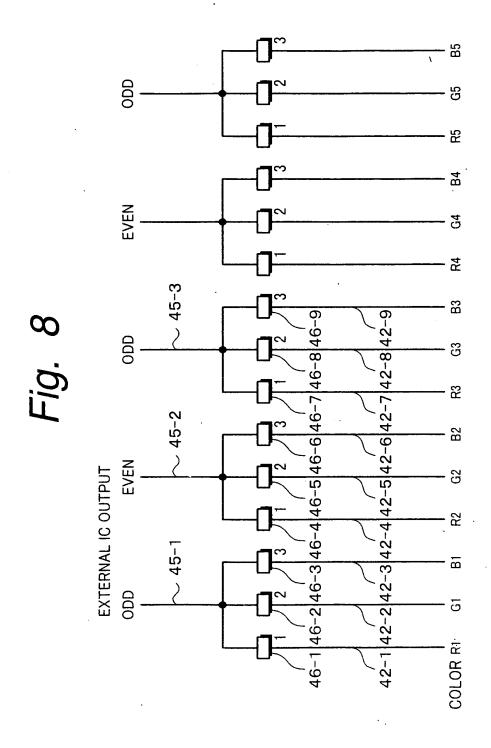


Fig. 9

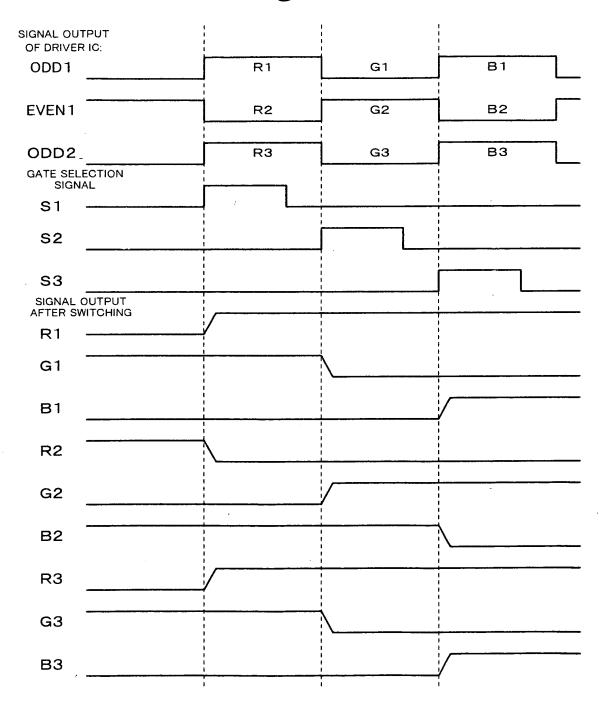


Fig. 10

and the second

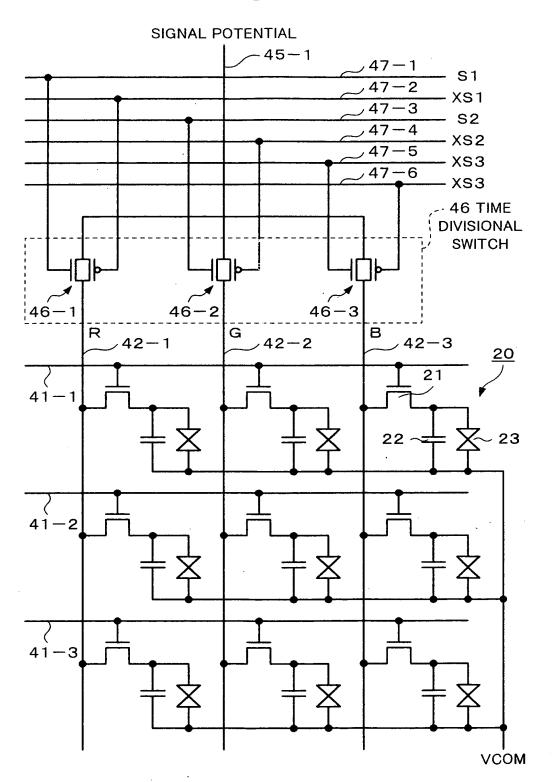


Fig. 11A

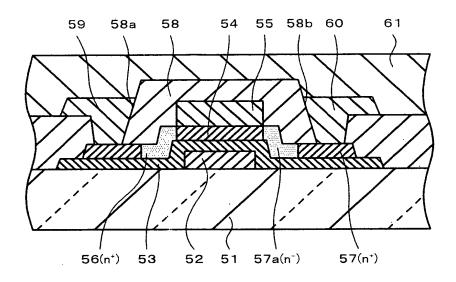
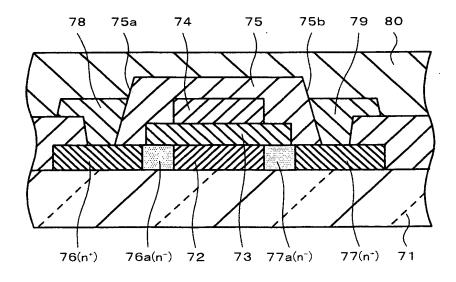


Fig. 11B



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Fig. 13A

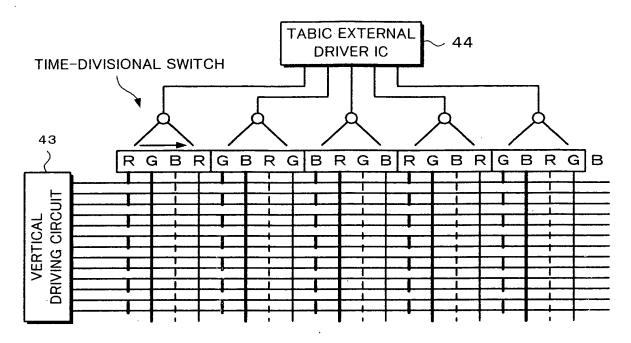
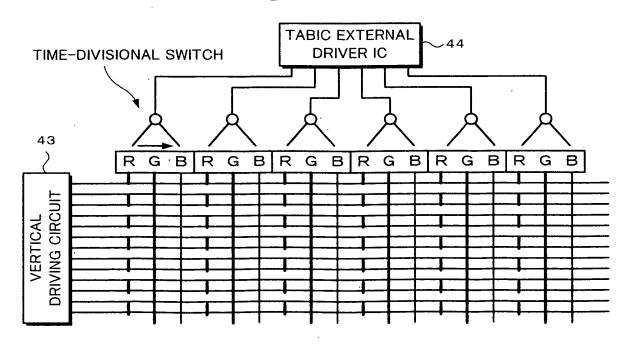
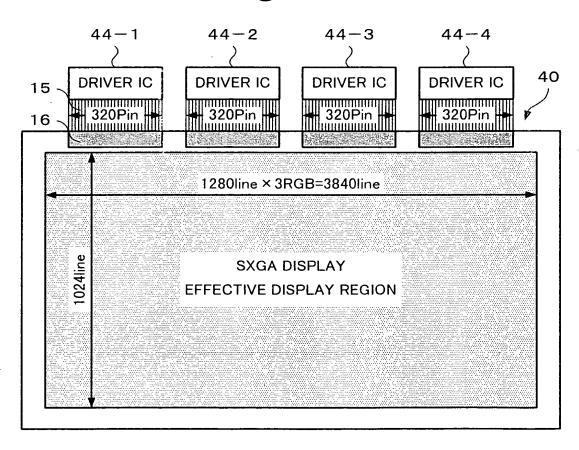


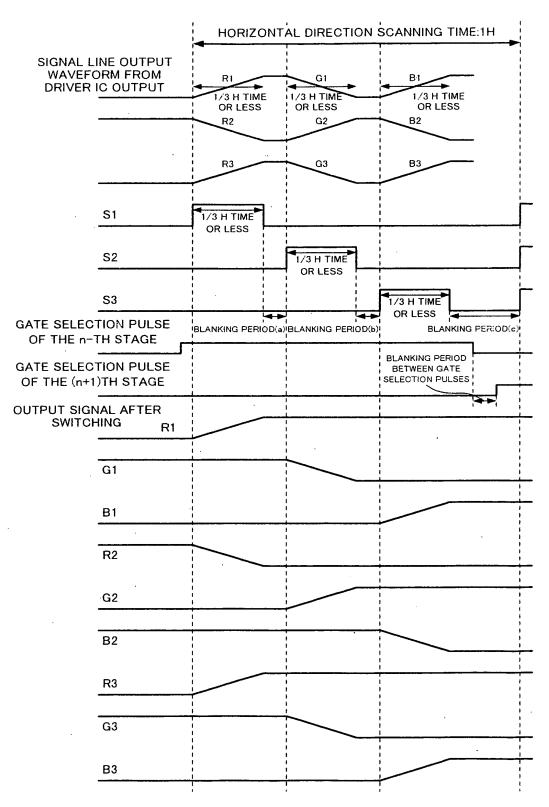
Fig. 13B

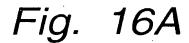












Washing to any the term

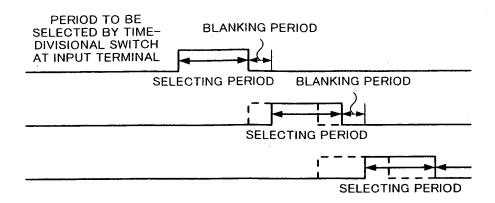
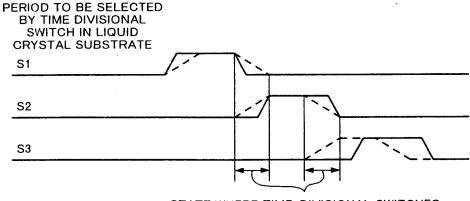
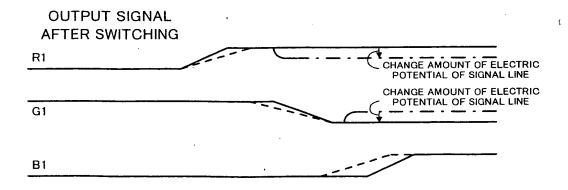


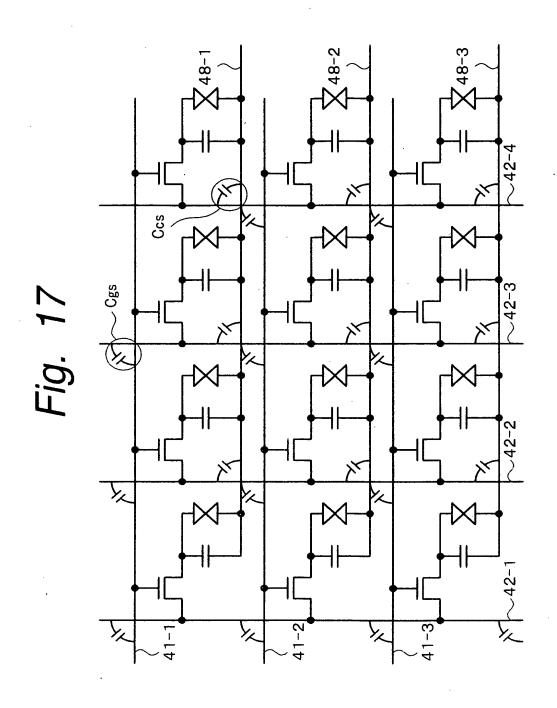
Fig. 16B

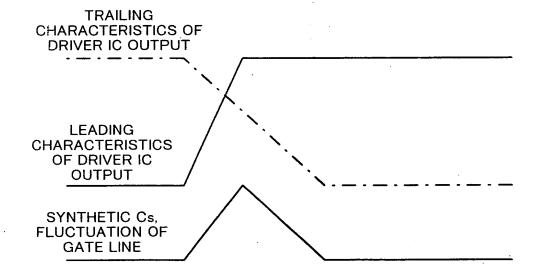


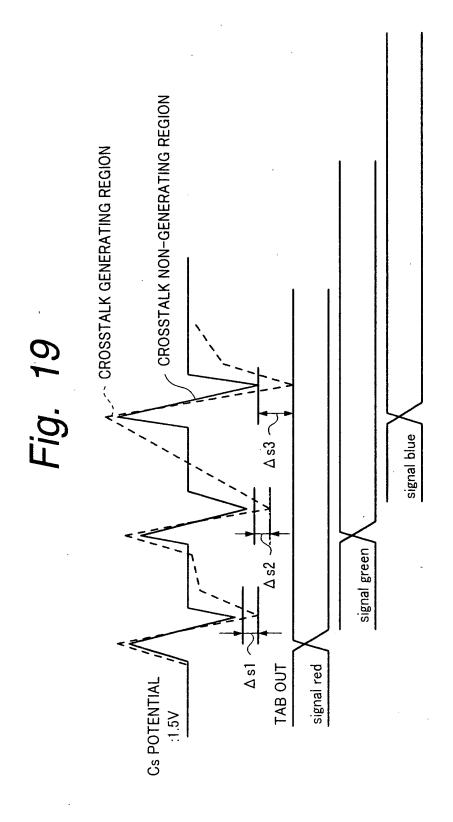
STATE WHERE TIME-DIVISIONAL SWITCHES ARE SIMULTANEOUSLY TURNED ON

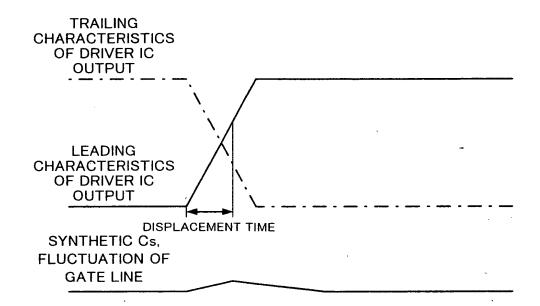
### Fig. 16C

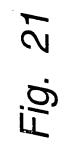


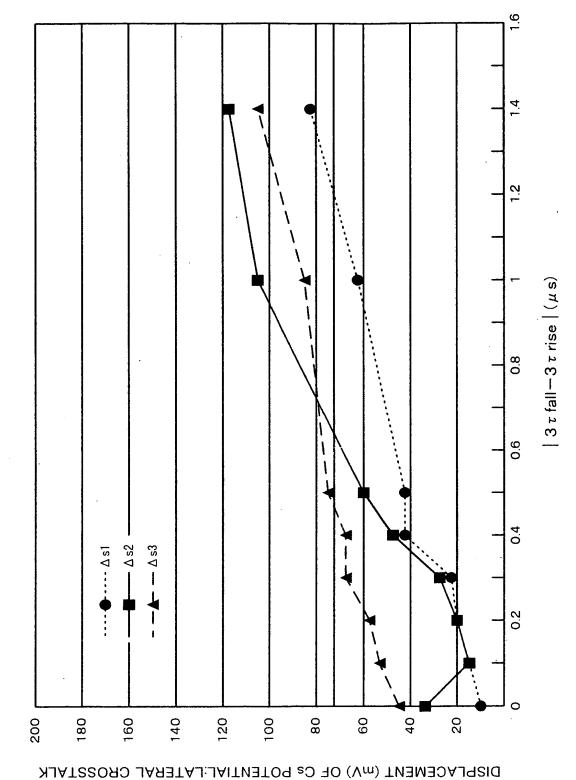




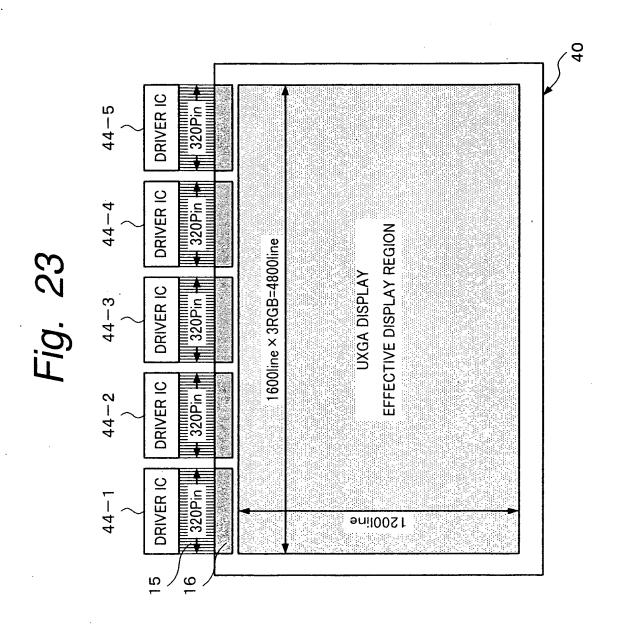








HORIZONTAL SCANNING TIME	21.537 µ s	15.63 μ s	12.504 µ s	10.971 µ s
TIME TO BE SELECTED BY TIME-DIVISIONAL SWITCH	3 m s	3 m s	3 m s	2 µ s
THROUGHRATE BY EXTERNAL IC	5 μ s	2μs	s π Z	1.5 µ s
BLANKING PERIOD	5 μ s	1μs	sηι	1μs
INVERSION DISPLAY METHOD	DOT INVERSION	DOT INVERSION	DOT INVERSION	DOT INVERSION
DOT FREQUENCY	78.75MHz	.108MHz	135MHz	157.5MHz



HORIZONTAL SCANNING TIME	16 µ s	13.333 µ s	12.308 μ s	11.429 μ s	10.667 µ s	10 µ s .	9.412 µ s
TIME TO BE SELECTED BY TIME-DIVISIONAL SWITCH	3 µ s	3 µ s	3 m s	2.5 µ s	2 µ s	2 µ s	2 µ s
THROUGHRATE BY EXTERNAL IC	2μs	2μs	5 μ S	2 µ s	1.5 μ s	1.5 µ s	1.5 μ s
BLANKING PERIOD	sη <sub>1</sub>	1μs	1 µs	sηl	1 µs	1μs	s π L
INVERSION DISPLAY METHOD	DOT INVERSION	DOT INVERSION	DOT INVERSION	DOT INVERSION	DOT DOT DOT DOT DOT DOT DOT DOT DOT INVERSION INVERSION	DOT INVERSION	DOT
DOT FREQUENCY	135MHz	162MHz	175.5MHz	189MHz	202.5MHz	216MHz	229.5MHz

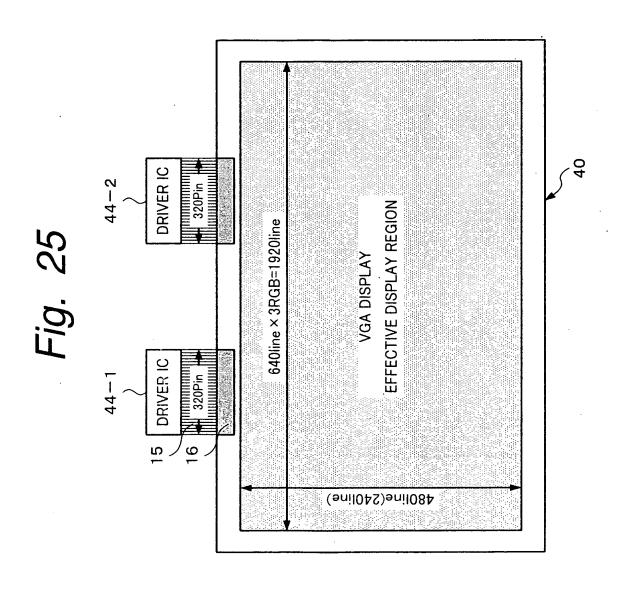


Fig. 26

oppn v voge.

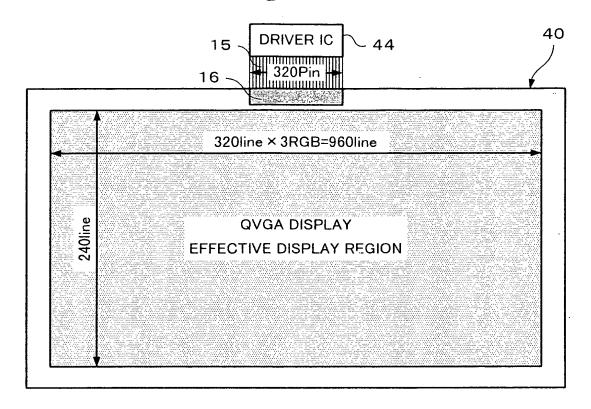


Fig. 27

	VGA	QVGA(1)	QVGA(2)
THE NUMBER OF PIXELS	HORIZONTAL:640 × 3RGB VERTICAL:480	HORIZONTAL:320 × 3RGB VERTICAL:240	HORIZONTAL:320 × 3RGB VERTICAL:240
HORIZONTAL SCANNING TIME	31.778 μ s	63.492 μ s	70.667 μ s
TIME TO BE SELECTED BY TIME- DIVISIONAL SWITCH	6.774 μ s	14.6 μ s	10.0 μ s
THROUGHRATE BY EXTERNAL IC	3μs	3 μ s	3 μ s
BLANKING PERIOD	PERIOD(a),(b): 1.7 μ s PERIOD(c): 8.056 μ s	PERIOD(a),(b): 3 μ s PERIOD(c): 13.692 μ s	PERIOD(a),(b): 7 μ s PERIOD(c): 26.667 μ s
INVERSION DISPLAY METHOD	1H VCOM INVERSION	1H VCOM INVERSION	1H VCOM INVERSION

Fig. 28

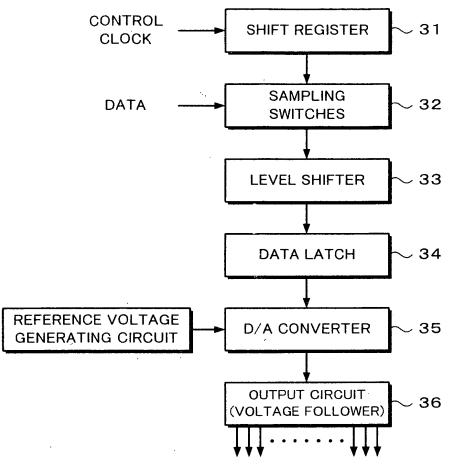


Fig. 29

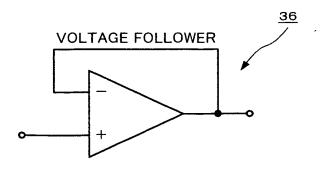


Fig. 30

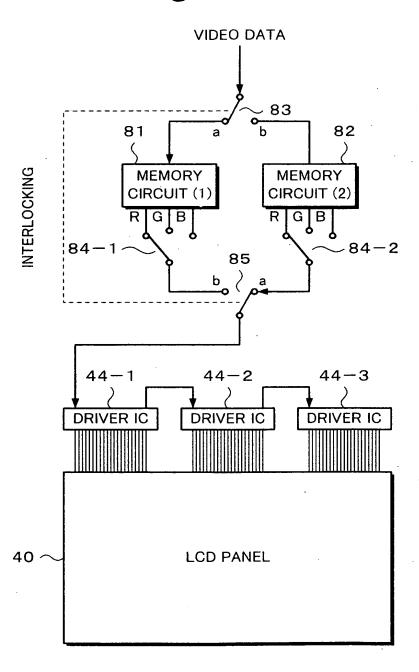


Fig. 31

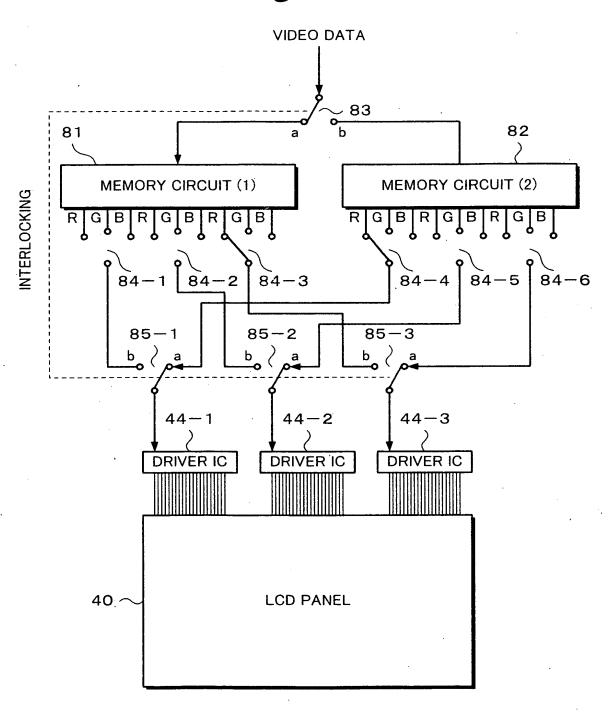


Fig. 32A

. 8666, ACM ?

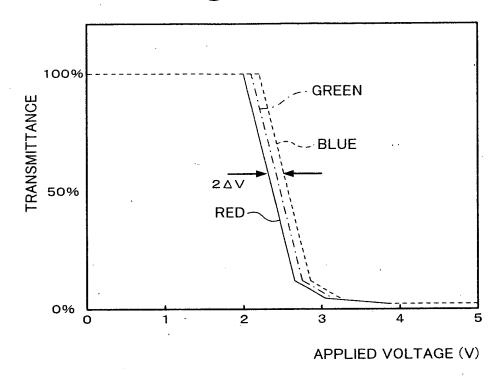
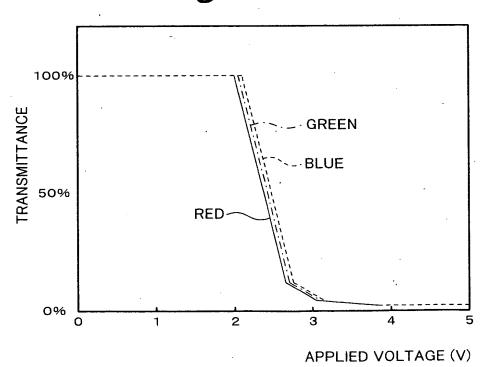
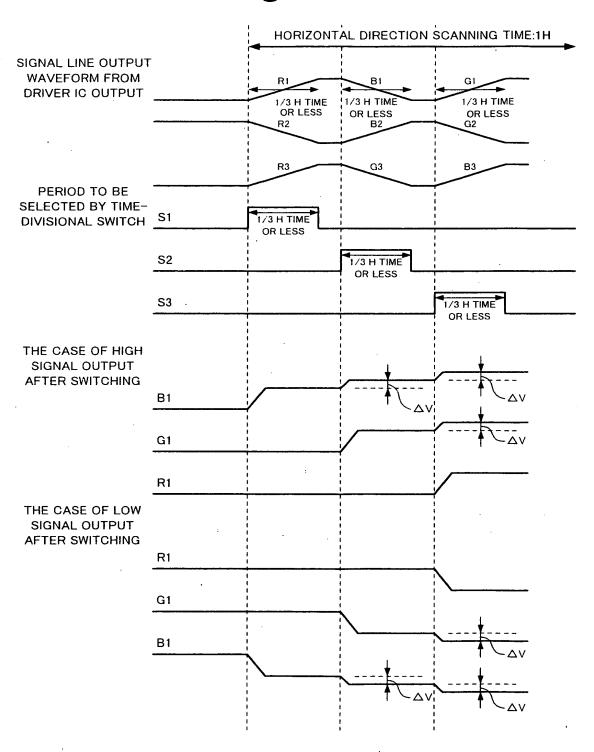


Fig. 32B



HIGH **POTENTIAL** S3' **S**3 S1 S2 **RED** BLUE **GREEN** RED Fig. 33A Csig1 Csig1 Csig1 Csig2 Csig2 HIGH POTENTIAL. S3' **S2 S**3 S1 **RED BLUE GREEN RED** Fig. 33B **DIVING** POTENTIAL Csig1 Csig1 Csig1 Csig2 Csig2 Csig2 :Csig2 HIGH HIGH **POTENTIAL POTENTIAL** S3' S1 1 S2 **S3 BLUE GREEN RED RED** Fig. 33C DIVING **DIVING** POTENTIAL **POTENTIAL** Csig1 Csig1 Csig1 Csig2 Csig2 Csig2

Fig. 34



HIGH **POTENTIAL** S3' S2 S3 S1 BLUE GREEN **BLUE RED** Fig. 35A Csig1 Csig1 Csig1 Csig2 Csig2 Csig2 LOW **POTENTIAL** S3' **S1** S2 S3 **BLUE** RED **GREEN BLUE** Fig. 35B **DIVING POTENTIAL** Csig1 Csig1 Csig1 Csig2 Csig2 Csig2 LOW HIGH **POTENTIAL POTENTIAL** S3' S2 S3 S1 RED GREEN **BLUE BLUE** Fig. 35C **DIVING DIVING** POTENTIAL POTENTIAL Csig1 Csig1 Csig1 Csig2 Csig2

Fig. 36

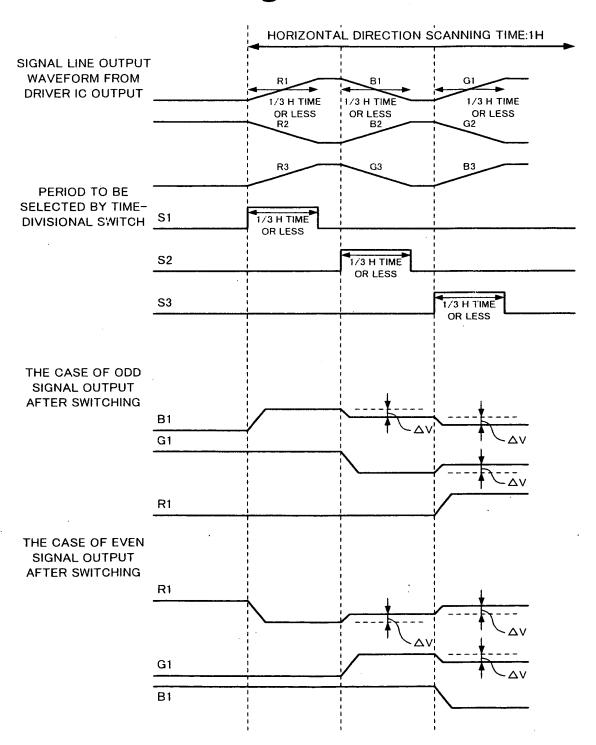
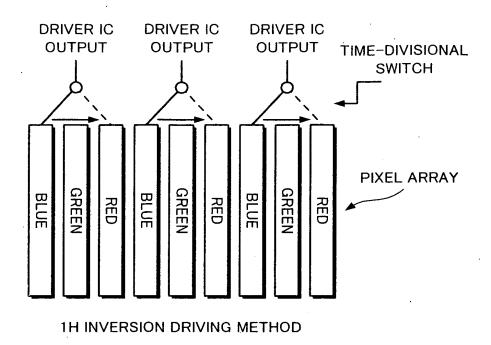
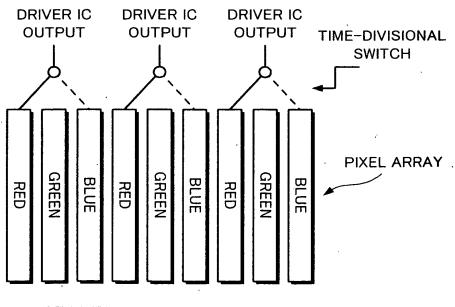


Fig. 37A



### Fig. 37B



- 10, 40. . LIQUID CRYSTAL DISPLAY PANEL
- 11-1 ~ 11-3, 41-1 ~ 41-3.. GATE LINE
- 12-1 ~ 12-6, 42-1 ~ 42-6.. SIGNAL LINE
- 13, 43.. VERTICAL DRIVING CIRCUIT
- 14-1 ~ 14-3, 44-1 ~ 44-5.. DRIVER IC
- 20. PIXEL
- 21.. THIN FILM TRANSISTOR
- 22. . ADDITIONAL CAPACITOR
- 23.. LIQUID CRYSTAL CAPACITOR
- 31.. HORIZONTAL SHIFT REGISTER
- 32. . SAMPLING SWITCHES
- 33. LEVEL SHIFTER
- 34. DATA LATCHES
- 35.. D/A CONVERTER (DIGITAL/ANALOG CONVERTING CIRCUIT)
- 36. . OUTPUT CIRCUIT
- 81, 82.. MEMORY CIRCUIT